Amendments to the Specification:

Please replace the paragraph beginning at page 12, line 8, with the following rewritten paragraph:

-- Referring now to FIG. 3, a block diagram showing the access point hardware platform 300 of the high-density radio access system in accordance with one embodiment of the present invention is shown. The access point controller 302 is controlled by the central processing unit ("CPU") 304, which is accompanied by a bus peripheral controller 307 ~~306~~. The access point controller 302 also includes flash memory 306, synchronous dynamic RAM (SDRAM) 308 and a serial port 310. The flash memory 306 is used for code storage as well as non-volatile configuration information. A large amount of fast SDRAM is shown to allow for the storage of protocol and link status data associated with all the users attached to the unit. The amount of SDRAM 308 is expandable to accommodate for more features as they are added to the system 300. The access point controller 302 is also connected to a PCI bus 312. The access point controller 302 can be upgraded easily through the use of configurable amounts of SDRAM 308 as previously mentioned to store user and program data. As the capabilities of the access point controller 302 are enhanced, more memory may be needed which drives the requirement to support different memory configurations. Driving the need for this feature are future software upgrades. The system 300 supports Trivial File Transfer Protocol ("TFTP") to provide remote software upgrade capability. There is no need to send a technician to each site to load new software. Finally, the system 300 supports the routing of user data to various locations depending on the custom I/O requirements of the service provider's network. Custom I/O modules can be placed on the access point controller 302 to provide this capability. The software is then configured to route data to these I/O modules as needed. In general, as the system grows, the core software architecture remains constant while new features are added. --

Please replace the paragraph beginning at page 16, line 16, with the following rewritten paragraph:

-- Driver software 414 and 416 is shown to support custom interface I/O for back-haul traffic. A Sector QoS Handler ("SQH") or traffic scheduler 418 manages the quality of service provided to each user as well as each sector. All communications to and from the handheld device pass through the SQH 418, which essentially throttles all of the messages to and from the users to throttle each user's ~~capacity y~~ capacity based on QoS parameters. The SQH 418 typically will have some type of queuing capability. Having the SQH 418 close to the access points (TBC/MLC device driver 426) reduces QoS overhead and prevents flooding the network with querles and dealing with backhand queulng mechanisms. The MLC 324 will also provide some local QoS functions to make sure that one transceiver does not get all the messages. User QoS agreements are also enforced through the L2CAP layer above the Host Computer Interface ("HCI") layer in the Bluetooth.TM. protocol stack. The different types of QoS that the user may have the option to subscribe to is stored within the QoS data 444 within the user database 402. In addition, serial port 420 capabilities are available for local O&M support 422 and initialization and configuration 424. --

Amendments to the Claims:

This listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A ~~radio access system high~~ high-density access radio system comprising:

an access point controller having a master connection handler and a sector quality of service handler;

one or more multi-link controllers communicably coupled to the access point controller;

~~one~~ two or more transceivers communicably coupled to each multi-link controller wherein said each multi-link controller maps signals communicated between said two or more transceivers and said access point controller thereby making the transceivers transparent to said multi-link controller;

a combiner communicably coupled to the ~~one~~ two or more transceivers for each multi-link controller; and

an omni directional antenna communicably coupled to the combiner wherein said sector quality of service handler manages the quality of service provided to each user being served by said access point controller and each sector being served by said omni directional antenna.

2. (Original) The system as recited in claim 1, wherein each multi-link controller comprises:

a first interface communicably coupled to the access point controller;

a baseband controller communicably coupled to the first interface; and

a multi-transceiver ASIC communicably coupled to the baseband controller, the multi-transceiver ASIC having a radio communicably coupled to each transceiver.

3. (Original) The system as recited in claim 2, wherein the baseband controller manages two or more piconets on a clock-phase basis.

4. (Original) The system as recited in claim 1, further comprising a memory communicably coupled to each multi-link controller.

5. (Original) The system as recited in claim 1, wherein the access point controller further comprises: a transceiver connection manager; and a transceiver database communicably coupled to the transceiver connection manager and the master connection handler.

6. (Original) The system as recited in claim 1, wherein the master connection handler and the sector quality of service handler perform load-balancing functions.

7. (Original) The system as recited in claim 1, wherein the system is installed in a sporting venue.

8. (Original) The system as recited in claim 1, wherein the system is installed in an entertainment venue.

9. (Original) The system as recited in claim 1, wherein the access point controller further comprises a user database communicably coupled to the master connection handler.

10. (Original) (Original) The system as recited in claim 1, wherein the one or more multi-link controllers are communicably coupled to the access point controller via a PCI bus.

11. (Currently Amended) The system as recited in claim 1, wherein the ~~one~~ two or more transceivers are communicably coupled to each multi-link controller via a USB bus.

12. (Original) The system as recited in claim 1, wherein the access point controller comprises:

bus controller;

a central processing unit communicably coupled to the bus controller; and

a memory communicably coupled to the bus controller.

13. (Original) The system as recited in claim 1, further comprising an Ethernet interface communicably coupled to the access point.

14. (Original) The system as recited in claim 1, wherein the system uses a Bluetooth communications protocol.